

# South Carolina Infant Safe Sleep Update: Trends, Tragedies and Opportunities

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South Carolina Birth Outcomes Initiative

SCDHHS

March 23, 2017

# Disclaimer

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This webinar is being recorded.

# Objectives

- ❖ Improve safe sleep messaging, education and practices in healthcare settings/birth centers and among parents and caregivers
- ❖ Increase the number of healthcare agencies/birthing centers that have a safe sleep policy and protocols on training and education for staff on how to handle unsafe sleep events with patients
- ❖ Provide consistent safe sleep messaging including the 2016 American Academy of Pediatricians (AAP) Safe Sleep Recommendations and incorporate safe sleep in a Baby-Friendly world



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Greenville Health System

Bradshaw Institute for Community  
Child Health & Advocacy

## **SC Infant Safe Sleep Update: Trends, Traumas and Tragedies**

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# Disclosure

- The speaker has no dualities of interest to disclose
- Is a member of the Greenville County Child Death Review Team
- Will refer at times to de-identified fatality cases reviewed in Greenville County
- Pictures used in this presentation are not from Greenville County Fatality Reviews or any other SC Fatality Case

# Objectives

- Define what Sudden Unexpected Infant Death is and Sudden Infant Death Syndrome
- Discuss Updated 2016 Recommendations for a Safe Infant Sleeping Environment
- Identify trends seen in sleep related deaths and implications for action





# Webinar Participants

- Do you know someone who lost an infant to “SIDS”?
- Do you know someone who lost an infant do to unsafe sleep?
- Do you know your county’s numbers of infant sleep related deaths and the trends?
- Do you know think the community understands the difference between SIDS and Accidental Suffocation/Strangulation?



# Sudden Unexpected Infant Death (SUID)

- The “big umbrella” of all unexpected infant deaths is called SUID or SUDI (Sudden Unexpected Death in Infancy)
- SIDS represents a subcategory of SUID.



# Terms and Definitions

- **Sudden Unexpected Infant Death (SUID):** The death of an infant younger than 1 year of age that occurs suddenly and unexpectedly.
- After a full investigation, these deaths may be diagnosed as :
  - Suffocation: When no air reaches a baby's lungs, usually caused by a block in the airway
  - Entrapment: When a baby gets trapped between two objects, such as a mattress and wall, and can't breathe



# Accidental Suffocation and Strangulation in Bed (ASSB):

- ASSB is a cause-of-death code used to identify infant deaths caused by suffocation or asphyxia (blockage of the infant's airway) in a sleeping environment.
- Example: *Suffocation by soft bedding*: When soft bedding, a pillow demonstrated below blocks the infant's airway.



# SUID cont'd

- **Overlay:** When another person shares the sleep surface with the infant and lays on or rolls on top of or against the infant while sleeping, blocking the infant's airway.
- **Wedging or entrapment:** When an infant gets trapped between two objects, such as a mattress and wall, bed frame, or furniture, blocking the infant's airway.
- **Strangulation:** When something presses on or wraps around the infant's head and neck blocking the airway.



Pinterest



Nafeesnomolood.com

# Sudden Infant Death Syndrome (SIDS):



- One type of SUID
- SIDS is the sudden death of an infant younger than 1 year of age that cannot be explained even after a full investigation that includes a complete autopsy, examination of the death scene, and review of the clinical history.
- **Fast Facts About SIDS**
- SIDS is the leading cause of death among babies between 1 month and 1 year of age
- More than 2,000 babies died of SIDS in 2010, the last year for which such statistics are available
- Most SIDS deaths occur when in babies between 1 month and 4 months of age, and the majority (90%) of SIDS deaths occur before a baby reaches 6 months of age, however it can occur anytime during the first year of life
- SIDS is a sudden and silent medical disorder that can happen to an infant who seems healthy

# Terms cont'd

- **Co-Sleeping:** Co-sleeping arrangements can include room sharing or bed sharing. The terms "bed sharing" and "co-sleeping" are often used interchangeably, but they have different meanings.
- **Room Sharing:** A sleep arrangement in which an infant sleeps in the same room as parents or other adults, but on a separate sleep surface, such as a crib, bassinet, or play yard. Room sharing is known to reduce the risk of SIDS and other sleep-related causes of infant death.
- **Bed Sharing:** A sleep arrangement in which an infant sleeps on the same surface, such as a bed, couch, or chair, with another person.





# SIDS and Other Sleep-Related Infant Deaths: Updated 2016 Recommendations for a Safe Infant Sleeping Environment

- Back to sleep for every sleep (supine)
- Firm, flat sleep surface
- **Room-sharing without bed sharing up to 1<sup>st</sup> year**
- **There is no evidence to recommend swaddling as a strategy to reduce the risk of SIDS**
- Keep soft objects/loose bedding out of sleep area
- Pregnant women should receive reg. prenatal care
- Avoid smoke exposure during pregnancy and after birth
- Avoid alcohol and illicit drugs during pregnancy
- **Breastfeeding is recommended**
- Consider offering a pacifier for sleep
- Avoid overheating and head covering
- Infants should be immunized in accordance with AAP and CDC recommendations
- Avoid use of commercial devices that are inconsistent with safe sleep recommendations
- Do not use home cardiorespiratory monitors as strategy to reduce the risks of SIDS.
- **Supervised awake tummy time**
- Continue the Safe to Sleep Campaign focusing on ways to reduce the risk of all sleep-related infant deaths
- Healthcare professionals/hospitals/CPS workers should endorse SIDS risk reduction recommendations from birth
- Media and manufacturers should follow safe sleep guidelines in their messaging and advertising
- Continue research and surveillance

# What does a safe sleep environment look like?



*Reduce the Risk of Sudden Infant Death Syndrome (SIDS) and Other Sleep-Related Causes of Infant Death*

Use a firm sleep surface, such as a mattress in a safety-approved\* crib, covered by a fitted sheet.

Do not use pillows, blankets, sheepskins, or crib bumpers anywhere in your baby's sleep area.

Keep soft objects, toys, and loose bedding out of your baby's sleep area.

Do not smoke or let anyone smoke around your baby.



Make sure nothing covers the baby's head.

Always place your baby on his or her back to sleep, for naps and at night.

Dress your baby in sleep clothing, such as a one-piece sleeper, and do not use a blanket.

Baby should not sleep in an adult bed, on a couch, or on a chair alone, with you, or with anyone else.

\*For more information on crib safety guidelines, contact the Consumer Product Safety Commission at 1-800-638-2772 or <http://www.cpsc.gov>.



Eunice Kennedy Shriver National Institute of Child Health and Human Development





# Why are we continuing to talk about this?

- Each year, about 3,500 infants die unexpectedly during sleep time, from SIDS or accidental suffocation
  - The rates of accidental trauma and injuries due to unsafe sleep environments/bed-sharing is increasing
  - There is a disconnect between messaging/education provided and parent/caregiver practice
- 
- NICHD 2017



# SC Trends

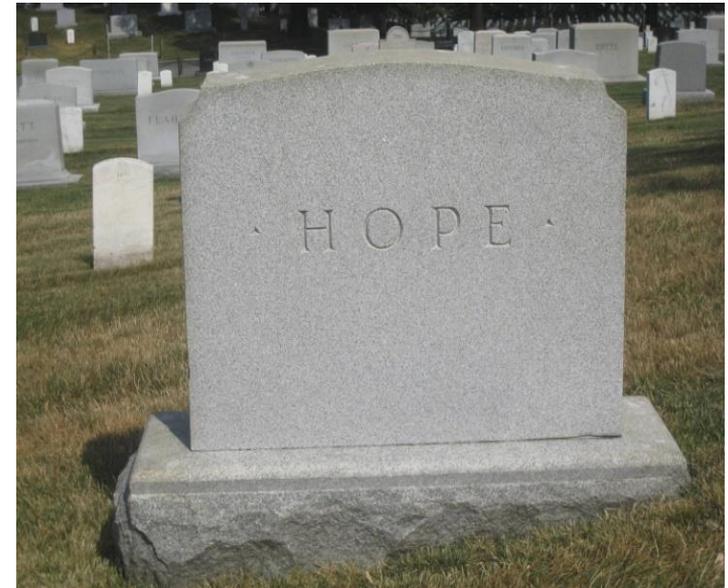
**Table 7. Breakdown of Sudden Unexplained Infant Deaths**

	2009	2010	2011	2012	2013	2014	2015	Total (2009-2015)
Accidental suffocation and strangulation in bed (W75, W84)	22	25	21	39	21	31	35	194
Sudden Infant Death Syndrome (R95)	44	49	45	33	35	31	28	265
Hanging, strangulation, and suffocation, undetermined intent (Y20)	5	4	2	1	9	4	4	29
Other ill-defined and unspecified causes of mortality (R99)	8	8	10	12	6	11	11	66
<b>Total</b>	<b>79</b>	<b>86</b>	<b>78</b>	<b>85</b>	<b>71</b>	<b>77</b>	<b>78</b>	<b>554</b>



# Greenville County Sleep Related Infant Deaths

- In the last seven years we have lost 57 infants (not including 3 in last 2 weeks) due to SUID – accidental suffocation and strangulation in bed
- **None of the deaths were due to SIDS and all were preventable**





# Trends seen on investigation. . .

- Infants placed on adult beds (bed sharing)
- Babies placed on pillows or pillow like devices
- Some infants placed in an unsafe position or had objects in sleep area
- None were found to be in a safe sleep environment
- Majority had 1, if not 2, safe sleep environments available in the home (crib, bassinet, pack 'n play) at the time of the death
- Majority of the cribs, bassinets, portable cribs were utilized for storage of items (clothes, diapers, wipes, toys etc...)
- None of the deaths were actual SIDS cases and all of the cases were preventable



# Common trend



Courtesy Of Greenville County Sheriff's Office



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# Barriers to following safe sleep recommendations stated by caregivers/parents -



- Baby sleeps better on his/her stomach
- Baby doesn't like to lay on his/her back
- We didn't intend to bed-share this long but I couldn't get the baby to sleep on his/her own
- I wanted the baby close by
- I couldn't see the baby in the crib/with the bumper pads so I put him in my bed
- Baby cries/colicky does better with me
- We knew not to use the bumper pads/positioners but we paid for them and it made the crib look nice/safe
- They sell the bedding/pillows in the stores...why not use them
- The baby was crying, I was tired and put him in my bed
- I've done this with all my kids
- The baby spits has/"Reflux" and will choke on his back
- I don't move in my sleep
- We thought we were doing the right thing
- I never thought this would happen to me.....



# Lessons learned

- Caregiver fatigue and infant crying may supersede safety advice
- Disconnect between education and practice
- Mixed messages and poor role modeling lead to unsafe practices
- Inconsistent wording on assessing for safe sleep by providers
- Need for a standard safe sleep message and education for all
- Safe Sleep Consults should be considered
- Unsafe Sleep is reportable to DSS

# What you can do to prevent **SIDS** and other sleep related deaths and injuries.



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Follow your **A B C** 's



Place your baby-

▶ **A**..... **Alone** to sleep

▶ **B**..... **BACK** to sleep

▶ **C**..... in a bare **CRIB** or other safe sleep environment



NICHD 2016

# Questions To Ask Parents and Caregivers



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- **Who** will your baby sleep with?
- **What** position will your baby sleep in?
- **Where** will your baby sleep?



# Hot topic.... The Baby Box



Babybox.com

Many agencies and organizations have voiced concerns around safety and cost as more data and research is needed.





**Thank You to those who have contributed to this presentation.**

- Greenville County Coroner's Office
- Pickens County Coroner's Office
- Greenville County Sheriff's Office
- And the many families and caregivers who have lost an infant and provided interviews and testimonials to the fatality teams and Coroner's Offices.



# Resources

- American Academy of Pediatrics [www.aap.org](http://www.aap.org)
- Consumer Product Safety Commission [www.cpsc.gov](http://www.cpsc.gov) (Product recalls)
- American SIDS Institute [www.sids.org](http://www.sids.org)
- Safe Kids [www.safekids.org](http://www.safekids.org)
- First Candle [www.firstcandle.org](http://www.firstcandle.org)
- Cribs For Kids [www.cribsforkids.org](http://www.cribsforkids.org)
- Upstate Cribs For Kids [www.safekidsupstate.org/cribs\\_for\\_kids.php](http://www.safekidsupstate.org/cribs_for_kids.php)
- National Institute of Child Health And Human Development [www.nichd.nih.gov/SIDS](http://www.nichd.nih.gov/SIDS)
- Greenville Health System [www.ghs.org](http://www.ghs.org)
- [Recalls.gov](http://Recalls.gov)



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[ghs.org](http://ghs.org)   



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# Infant Safe Sleep Update 2017: Taking Action

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# Disclosures

- The presenter has no significant dualities of interest to disclose.



# Objectives

- Recall new research highlighting why unsafe sleeping habits persist
- Outline hospital strategies that can be effective for promoting safe sleep
- List steps that individuals, practices, and hospitals can take to make an impact on unsafe sleep deaths in their communities





# Audience Poll

- Have you personally slept with an infant under the age of 1?
- Have you ever let an infant under the age 1 sleep in a car seat, swing, positioner, bouncy seat, or on a pillow, blanket, sofa or chair?

## **Mother**

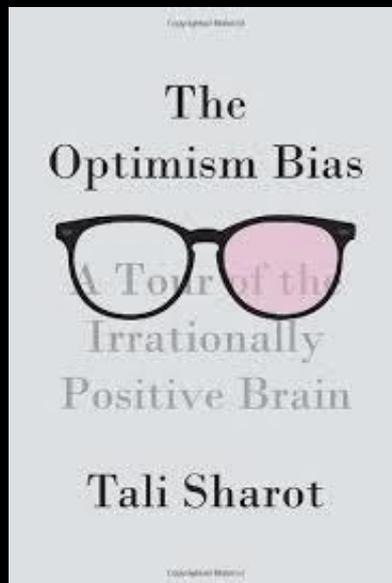
[*muhth-er*] **-noun**

1. One person who does the work of twenty. For free.



# Why Do We?

- Desire to be close to baby for bonding, feeding, comfort, crying, other needs
- Lack of effective sleep training methods and crying coping strategies for families
- Optimism bias
  - Risk increases when bad habits don't result in harm



Egocentric thinking is normal

Causes a person to believe that they are less at risk of experiencing a negative event compared to others

Transcends gender, race, nationality and age

Corrected through personal experience only



# FAMILY TRIES EXTREME CO-SLEEPING

## PARENTS BUILD BED TO SHARE WITH 5 KIDS

@GMA



THE KID PURCHASED FOR \$2 IN FRESNO IS NOW WORTH \$5 MILLION





# Today's Challenges

- Parental stress and lack of resources
- Low education and parenting experience
- Lack of role-models
- Improvised parenting on-the-fly
- Parents place infants where/how they might be most comfortable and sleep longer





# New Opinions and Research

## AAP Safe Sleep Policy, 2016



- Health care providers, staff in newborn nurseries and NICUs, and child care providers should endorse and model the SIDS/SUID risk-reduction recommendations from birth
- Emphasizes the protective effects of breastfeeding and vaccination

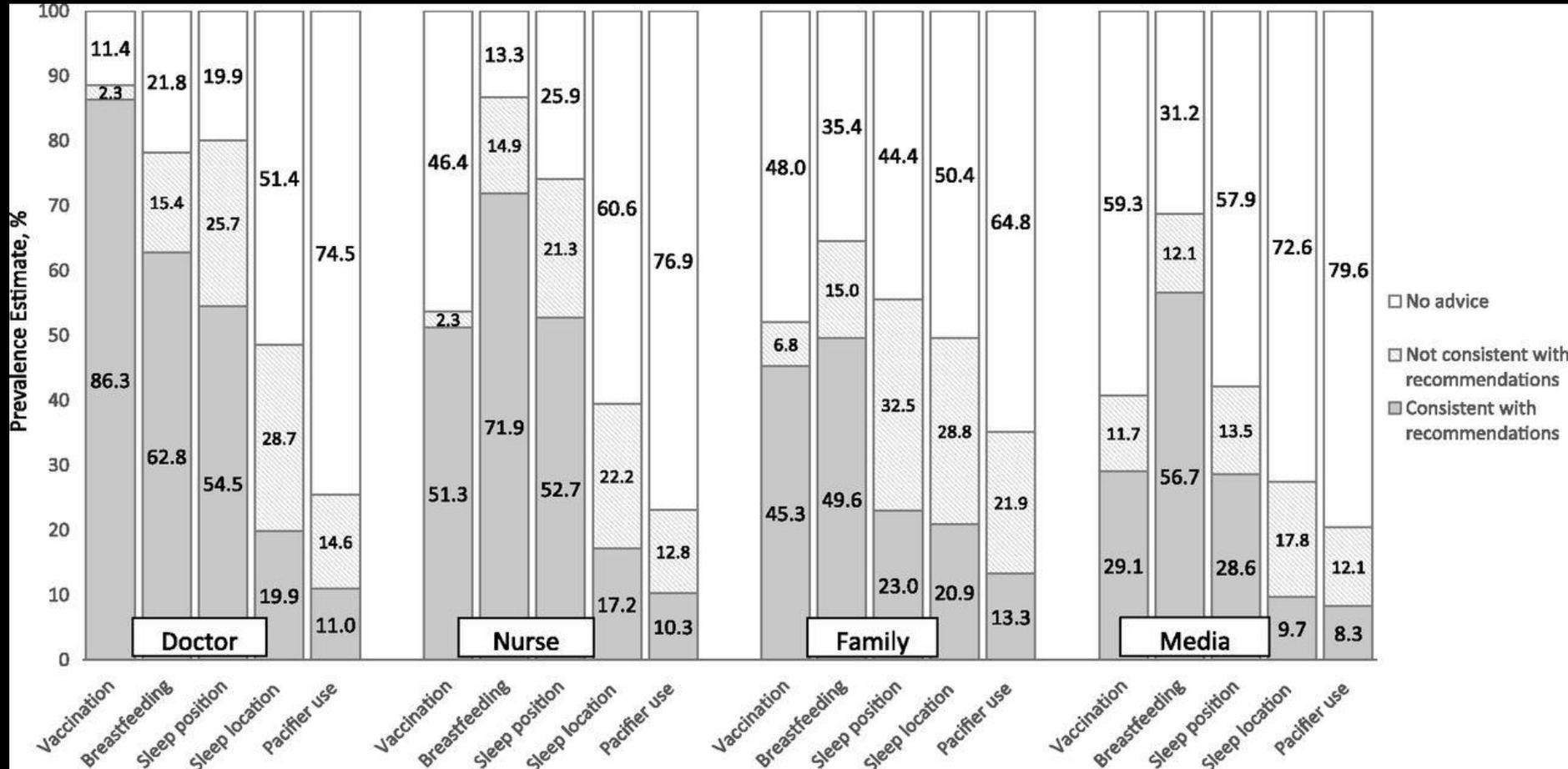


# Parental Counseling Research

- *Advice has been associated with increased adherence to recommended infant care and may represent a modifiable factor to promote infant health.*
- 1031 mothers with infants 2-6m old surveyed about source of advice regarding infant care
- Doctors were the most prevalent source of advice
- Reported advice from doctors and nurses were similar
- Study highlights opportunities for improvement



# Source of Advice





# Hospital Practices

- Rise in skin-to-skin and breastfeeding practices result in more mothers falling asleep while holding newborns
- Devices, sleep positions, and sleep environment needed for sick infants is different from those recommended for home
- Lack of time, training and experience results in poor modeling and correction of unsafe sleep practices that parents display in the hospital
- Pressure to achieve high patient satisfaction scores may interfere with discussing sensitive topics or safety issues in the hospital





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# Mother/Baby Unit



# Bassinets



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# Other Hospital Environments

- Neonatal intensive care
- Children's inpatient unit
- Pediatric intensive care



[babygenes.net](http://babygenes.net)



[reportertotwinmom.com](http://reportertotwinmom.com)



[usaspeaks.com](http://usaspeaks.com)



# What Can We Do?



## What Does Safe Sleep Look Like?

Baby sleeps in a crib,  
bassinet, or pack-n-play.

Use a firm mattress  
with a fitted sheet.

Baby  
sleeps  
alone.



Baby  
sleeps on  
his back.

Use a one-piece  
sleeper.

Make a bare naked sleep area – **NO** pillows,  
blankets, bumper pads, or toys.



# Provide Prenatal Education

- Obstetricians have an opportunity to educate families prenatally about Safe Sleep practices and devices
- Families often look to you for advice regarding products on the market; reinforce that most infant sleep products have not been safety-tested and are generally considered unsafe for use
- 2 simple questions to start a conversation
  - What will your baby sleep in?
  - Where will your baby sleep?



# Create a Unit Policy +

- Staff training
- Expectations and accountability
- Define safe sleep practices and environment
- Define education to provide families (verbal and written)
- Define process for handling family noncompliance (documentation, indications for reporting child neglect, event reporting)
- References
- Administrative approval





# Define Staff Expectations

- Oversee a safe sleeping environment in the hospital
- Educate why an infant may be in an alternate sleep position or using a positioner/device, and what should be done at home
- Educate about proper swaddling and when to stop (2w to 2m)
- Perform regular crib audits
- Educate on safe sleep environment and practices for home prior to discharge (verbal and written)
- Document unsafe sleep occurrences and actions taken
- Give extra attention to infant safety when caregivers are sedated, exhausted or medically restricted



# Also

- If using swaddle sleep sacks for infants, ensure proper fit for each baby
- Avoid tucking receiving blankets on 3 sides
- Do not elevate the head of bed/bassinet unless a medical order is written with elevation specifics, start and stop dates
- Same for other alternate positioning
  
- Avoid using non-recommended devices in the hospital, such as pacifier lanyards and pacifiers attached to stuffed animals
- Include the promotion of breastfeeding, vaccination, and smoking cessation as measures to impact SUID



# Create Tools

- Encounters on the Mother/Baby Unit can be an opportunity to intervene and educate, using a consistent and positive approach
- Scripted responses can standardize our approach and reduce anxiety over redirecting families to use safer practices

“I’m worried about how...” (the baby is in bed with you / there are extra blankets in the bassinet / the baby is wrapped in a fuzzy blanket / etc. )

“We are promoting a Safe Sleep Campaign on our unit. I’m supposed to...” (put the baby in the bassinet if you are resting / take extra blankets or clothes out of the bassinet / be sure the baby is swaddled only in a thin blanket / etc. )



### Beyond Back to Sleep ... Safe Sleep

It is important for your baby to have a safe sleep environment for every sleep, every time.

#### Ask Yourself the 3 Ws

##### WHAT does your baby sleep in?

Your baby should sleep on her back in a crib, bassinet or Pack 'n Play, on a firm mattress with a tightly fitted sheet.

##### WHERE is your baby sleeping?

Let your baby sleep in your room but never in your bed. Your baby always should sleep in her own space with nothing around her.

##### WHO is sleeping with your baby?

Your baby always should sleep alone, with no people, animals or objects in the same place. Babies should not use pillows, bumpers, positioners, blankets of any kind, sheepskins, stuffed toys or nursing pillows during sleep. They should never be put to sleep in car seats, swings or bouncy seats.

Everybody, everywhere, every time: Place your baby in a safe sleeping environment for every sleep! For more, visit [safekidsupstate.org](http://safekidsupstate.org).

### Steps to Breastfeeding Success

1. While you are awake, place your baby skin to skin often for feeding, comfort and bonding.
2. We want your stay to be as much like home as possible, so you and your baby will be cared for in the same room, as long as you both are healthy.
3. Feed your baby whenever you see hunger signs: mouth opening, head turning, restlessness.
4. Feed your baby only breast milk for the healthiest start. Your nurse, lactation consultant or provider will let you know if your baby needs anything extra.
5. Giving a pacifier too early can interfere with learning to breastfeed. Wait about a month before using pacifiers and bottles.
6. For help after you leave the hospital, call our Breastfeeding Help Line, (864) 455-2229.



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130123



- Baby sleeps alone  
Not with adults, siblings or pets  
No toys, blankets or crib bumpers
- Baby sleeps in a crib  
Not an adult bed, couch, swing or car seat
- Use a firm mattress with a tightly-fitted sheet
- Baby sleeps on back
- Never let a blanket cover baby's face
- Never overheat baby
- No smoking around baby

FAMILY MEMBERS & BABYSITTERS, THIS ALSO MEANS YOU!

**NO MONKEY BUSINESS**

NIGHTTIME AND NAP TIME TOO!



Best Start For Babies  
OAKLAND COUNTY



## Safe Sleep Certificate

Congratulations! You've learned how to keep

(Baby's Name)

sleeping safely!

(Date)

(Hospital)



## Hip, Hip, Hooray!

(Baby's Name)

Graduated to Safe Sleep Today!

(Hospital)  
NICU

(Date)

Awesome Job!



Rochestermedia.com

# Give Gifts



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Forresthealth.org

Arm and neck openings sized for a safer fit.

Use over regular pajamas to replace loose blankets.

Inverted zipper for easy diaper changes. Won't pinch baby's chin.

Sack design helps lessen the likelihood for baby's legs to get caught in crib rungs.

"Back is Best" message reminds all caregivers to put baby to sleep on her back.

Sleeveless to help reduce the risk of overheating.

Premium fabrics - always. Added chemicals - never.

Roomy sack design promotes healthy hip development. *International Hip Dysplasia Approved.*

Halosleep.com

# Create a Quality Improvement Project



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- ❖ Create a Safe Sleep Policy and Procedure
- ❖ Measure baseline unit compliance and plan interventions
- ❖ Educate staff and physicians regarding policy, safe sleep practices and safe sleep environments for infants
- ❖ **Act to improve** unit safe sleep practices
- ❖ Collect data to measure improvement
- ❖ Celebrate success with staff and physicians





# Crib Audit Tool

## Safe Sleep Checklist From Birth to 1 year of Age

Room# \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Age of infant \_\_\_\_\_ Staff Initials \_\_\_\_\_

Parent/Caregiver Present - Yes/ No

Points	Acceptable = 1 Point	Unacceptable = 0 Points
	<b>Sleep Location</b>	<b>Sleep Location</b>
	<ul style="list-style-type: none"> <li>• <b>Alone</b> (bassinet, crib, incubator, phototherapy)</li> <li>• <b>Held</b> by a fully awake caregiver</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Bed sharing</b> (with parent, caregiver, sibling)</li> <li>• <b>Inappropriate location</b> (adult bed, crib, car seat, sofa, chair)</li> <li>• <b>Sleep positioner</b> in bed</li> <li>• <b>Held</b> by drowsy or sleeping caregiver</li> </ul>
	<b>Sleep Position</b>	<b>Sleep Position</b>
	<ul style="list-style-type: none"> <li>• <b>Prone</b> (on back)</li> <li>• <b>Alternate position per MD order</b> (side, stomach, head of bassinet/crib elevated)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Alternate position without MD order</b> (side, stomach, head of bassinet/crib elevated)</li> </ul>
	<b>Crib Environment</b>	<b>Crib Environment</b>
	<ul style="list-style-type: none"> <li>• <b>Empty</b> crib (nothing around baby)</li> <li>• Only infant care tools present in crib (loose pacifier, bulb syringe, thermometer)</li> <li>• <b>Crib rail locked</b> in upright position</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Inappropriate objects</b> in crib (stuffed animals, objects, toys, clothes, blanket rolls, blanket folded under head, additional blankets covering mattress, pillows, Boppy or soft surface under baby, pacifier tethered to clothing or bedding, diapers, wipes)</li> <li>• <b>Crib rail down</b></li> </ul>
	<b>Swaddling and Clothing</b>	<b>Swaddling and Clothing</b>
	<ul style="list-style-type: none"> <li>• <b>Swaddled tightly</b> in thin receiving blanket with face completely clear</li> <li>• <b>Velcro swaddler</b> used for swaddling</li> <li>• <b>Tucked receiving blanket</b> (3 sides) at chest level</li> <li>• <b>Layers</b> of thin clothing/blanket equal 2 or less unless per MD order</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Swaddled loosely</b> or with blankets extending above shoulders</li> <li>• <b>Thick blanket(s)</b> used for swaddling</li> <li>• <b>Folded blanket(s)</b> covering baby</li> <li>• <b>Layers</b> of clothing/blankets equal 3 or more without MD order</li> </ul>
	<b>NOTES</b>	<p><b>What additional objects were in sleep environment?</b>  <b>Was temperature of room appropriate for a lightly dressed adult?</b>  <b>Was baby feeding? Yes/No Breast/Bottle</b></p>

# Get Certified



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DONATE

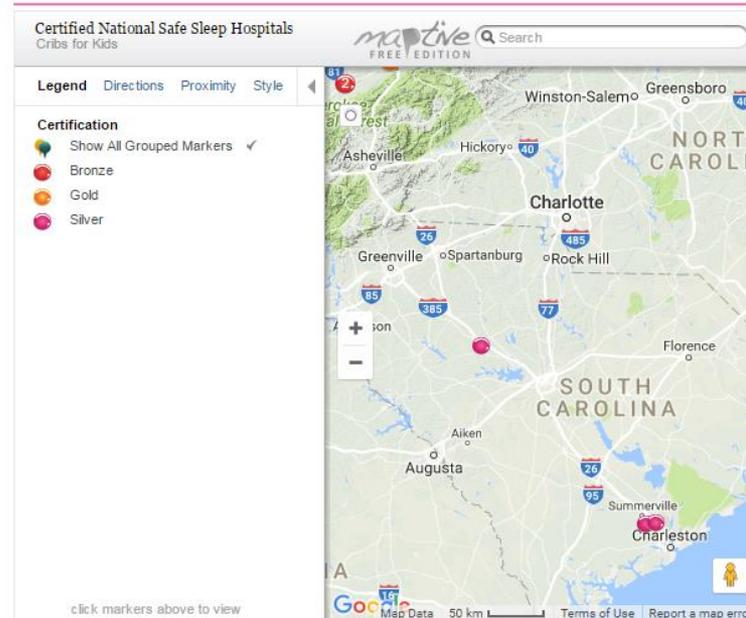
PARTNER LOCATOR

HOME ABOUT» CONFERENCE EDUCATION» EVENTS» HOSPITAL CERTIFICATION» MEDIA» PARTNERS»

## SAFE SLEEP HOSPITAL CERTIFICATION

- Hospital Based Safe Sleep Program
  - How to Get Started
  - The Epidemic That's Killing Our Babies
  - HOSPITAL INITIATIVE TOOLKIT: Legal Disclaimer: The National Safe Sleep Hospital Certification Program is Copyright© 2015 by Cribs for Kids®.
- The National Safe Sleep Certification Program©
  - Bronze Certification Form
  - Silver Certification Form
  - Gold Certification Form
- Criteria for Designation
  - Audits and PDSA Cycles

## Map of Certified Safe Sleep Hospitals



SC Certified Hospitals

Newberry County  
Memorial Hospital

Summerville Medical  
Center

Trident Medical  
Center





# South Carolina Infant Safe Sleep Update: What Can Be Done During Birth Hospitalization? What To Overcome and What Example to Follow?

Sarah N. Taylor, MD, MSCR

Associate Professor, Division of Neonatology

Lead, SC BOI Baby Friendly/Safe Sleep Work Group



**musc**  
Children's Health  
Medical University of South Carolina

Changing What's Possible

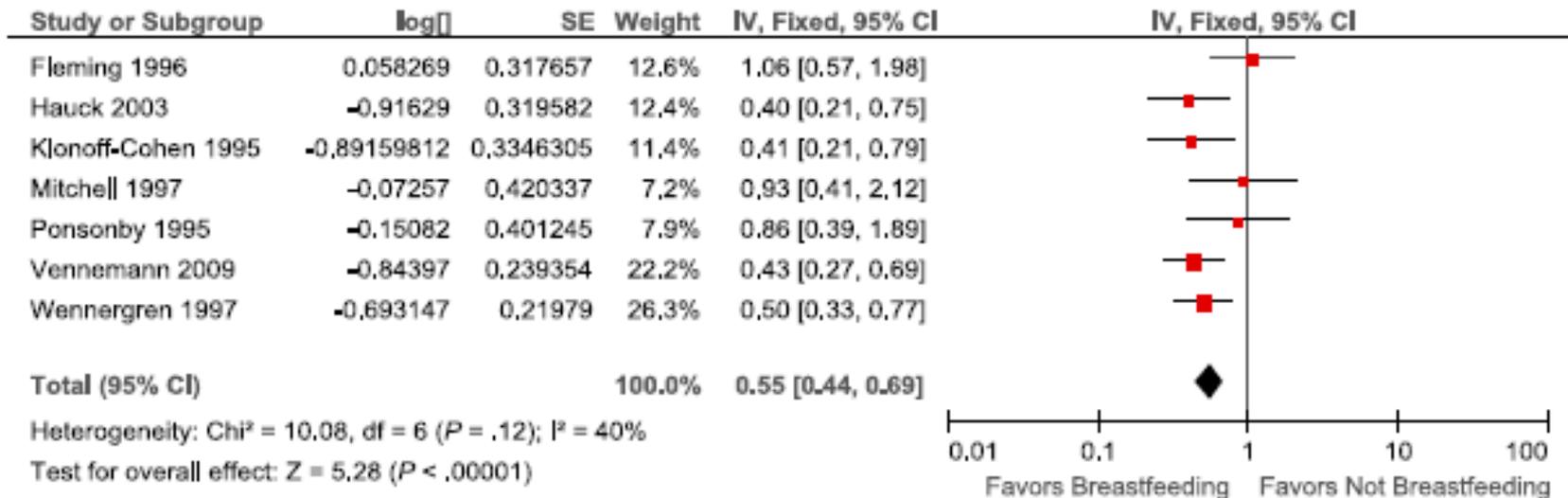
# What Can We Do During Birth Hospitalization?





# Breastfeeding

# Breastfeeding to Decrease SIDS



**FIGURE 5**

Multivariable analysis of any breastfeeding versus no breastfeeding. Adapted from Hauck et al.<sup>162</sup> log[ ], logarithm of the OR; Weight: weighting that the study contributed to the meta-analysis (by sample size); IV, Fixed, 95% CI, fixed-effect OR with 95% CI.

# Sudden Unexpected Postnatal Collapse

- ▶ Any condition resulting in temporary or permanent cessation of breathing or cardiorespiratory failure in a well term or late preterm newborn within the first 7 postnatal days
- ▶ >35 weeks' gestation
- ▶ Well is defined as normal 5-minute APGAR, no requirement of resuscitation
- ▶ Outcome of death, requiring intensive care, or encephalopathy

# Breastfeeding and Sudden Infant Death

- ▶ **↓ SIDS**
  - ▶ Odds ratio decreased 0.64 (95% CI 0.51, 0.81) times
- ▶ **↑ Breastfeeding rates with Skin-to-Skin and Rooming-in**
  - ▶ Baby Friendly significantly increases 1.2 (95% CI 1.11, 1.28) times
  - ▶ Skin-to-Skin Care also improves temperature, stability, and maternal stress
  - ▶ Rooming-in also improves satisfaction, safety, & education opportunities
- ▶ **↑ SUPC with Hospital Skin-to-Skin and Rooming-in**
  - ▶ Case reports
- ▶ Also, infant falls now 3.94 per 10,000 birth rather than 1.6 per 100,000 births (may have been under-reported in the past)

# Prevent SUPC

- ▶ Fairly new identification, so no evidence-based intervention yet

## Types of Change

Assess

Educate

Incorporate

Observe

Understand

## Safe Sleep and Skin-to-Skin Care in the Neonatal Period for Healthy Term Newborns

Lori Feldman-Winter, MD, MPH, FAAP, Jay P. Goldsmith, MD, FAAP, COMMITTEE ON FETUS  
AND NEWBORN, TASK FORCE ON SUDDEN INFANT DEATH SYNDROME

# Assess

- ▶ Maternal Fatigue
- ▶ Maternal Unsteadiness
  
- ▶ Take advantage of current hospital focus on Fall Prevention
  - ▶ Make sure available process improvement includes postpartum mothers
  
- ▶ At-risk infant currently defined as
  - ▶ Requiring resuscitation
  - ▶ Low 5-minute Apgar score
  - ▶ Later preterm (35-36 weeks) AND Early term (37-39 weeks)
  - ▶ Difficult delivery

# Maternal Fatigue

- ▶ “Second Night Syndrome”
- ▶ Early morning hours
- ▶ Opioid administration within 2 hours
- ▶ Maternal history of substance abuse
- ▶ Breastfeeding
- ▶ Co-sleeping

**Exhausted, medicated post-partum mothers will fall asleep while breastfeeding**

# Assess

- ▶ **SUPC Timeline**
  - ▶ 30-73% will occur in first 2 hours
  - ▶ 30% in first 2 days
  - ▶ 30% in 2-7 days
- ▶ **Frequent assessment in first 2 hours to include**
  - ▶ Nose and mouth not covered
  - ▶ Head turned to one side
- ▶ **Plan for assessments after the first 2 hours**
  - ▶ Concentrate on high-risk mothers and infants
  - ▶ At baseline follow AWHONN guidelines for staffing
  - ▶ Consider extra observers-
    - ▶ In United Kingdom, hired nursing students to keep an eye on mother/infant dyads in early morning

# Educate, Educate, Educate

- ▶ **Staff**
  - ▶ Know SUPC is a risk and know risk factors
- ▶ **Mother and family**
  - ▶ Know SUPC is a risk and know risk factors
  - ▶ Use patient safety contract as a means for education



# Incorporate

- ▶ Scoring for maternal fatigue
  - ▶ Not developed YET
- ▶ Maternal fatigue as an indication for removal of infant from room
- ▶ Safe equipment
- ▶ Number of people observing
- ▶ Increased assessments
- ▶ **Methods to reduce fatigue**
  - ▶ Avoid sleep disturbance
  - ▶ Afternoon nap time



# Barrier to Safe Sleep: Parental Fatigue



# Nocturnal Video Assessment of Infant Sleep Environments

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**TABLE 1** Study Baseline Participant Demographic Characteristics (*N* = 162)

Variable	Value
Child sex	
Male	77 (48)
Female	85 (52)
Maternal demographic characteristics	
Age, y	29.3 ± 5.3
Race/ethnicity	
White	135 (84)
Black	6 (4)
Asian	5 (3)
Hispanic/Latina	9 (6)
Other	5 (3)
Education	
High school graduate or less	22 (14)
Some college	30 (19)
College graduate or more	110 (68)
Marital status	
Single	4 (2)
Single, cohabitating with partner	22 (14)
Married, cohabitating with partner	132 (82)
Father involved, living separately	4 (2)
Paternal demographic characteristics	
Age, y	32.0 ± 5.9
Race/ethnicity	
White	124 (85)
Black	5 (3)
Asian	5 (3)
Hispanic/Latino	7 (5)
Other	5 (3)
Education	
High school graduate or less	23 (15)
Some college	26 (17)
College graduate or more	100 (67)
Family income, thousands of dollars, median (interquartile range)	60 (37–90)

Unless otherwise indicated, data are presented as *n* (%) or mean ± SD.

**TABLE 2** Initial Sleep Location, Surface, Position, and Sleep Environment According to Age

Variable	1 Month (n = 160)	3 Months (n = 151)	6 Months (n = 147)
<b>First sleep location</b>			
Parent room	93 (58)	68 (45)	38 (26)
Own room	54 (34)	78 (52)	101 (69)
Other room	13 (8)	4 (3)	7 (5)
<b>Sleep surface</b>			
Crib (crib, cradle, bassinet, playpen)	127 (79)	136 (90)	130 (88)
Adult bed or mattress	13 (8)	10 (7)	11 (7)
Car seat	10 (6)	3 (2)	2 (1)
Swing	4 (3)	0	0
Other	3 (2)	1 (1)	1 (1)
Bedside co-sleeper ("sidecar")	2 (1)	1 (1)	1 (1)
Sofa	0	0	2 (1)
<b>Position placed on first sleep surface</b>			
Supine	138 (86)	123 (82)	98 (67)
Side	12 (8)	15 (10)	22 (15)
Prone	7 (4)	12 (8)	25 (17)
Indeterminate (not supine)	3 (2)	1 (1)	2 (1)
<b>Loose/nonapproved items on sleep surface</b>			
Loose bedding	134 (84)	112 (74)	101 (69)
Bumper pads	39 (24)	64 (42)	70 (48)
Pillow/cushion	31 (19)	29 (19)	30 (20)
Stuffed animal/pillow-like toy	26 (16)	39 (26)	49 (33)
Sleep positioner/wedge	22 (14)	11 (7)	1 (1)
Another person	14 (9)	9 (6)	12 (8)
Other	11 (7)	8 (5)	5 (3)
Mobile/hanging toy within child's reach	6 (4)	7 (5)	11 (7)
Hard toy	5 (3)	5 (3)	18 (12)
SIDS monitor	5 (3)	4 (3)	2 (1)
Bottle	3 (2)	1 (1)	8 (5)
Loose cord/electrical wire	3 (2)	2 (1)	2 (1)
Pet	1 (1)	1 (1)	3 (2)
<b>Is first sleep location shared with another person?</b>			
No	145 (91)	142 (94)	135 (92)
Yes; parent	14 (9)	9 (6)	11 (7)
Yes; other	0	0	1 (1)

At 1 month, 21% on nonrecommended surface

At 1 month, 14% in nonsupine position

At 1 month, 91% had loose/nonapproved items on sleep surface

At 1 month, 9% in shared Sleep location

**TABLE 3** Sleep Location, Surface, Position, and Sleep Environment for Infants Moved to a Second Location

Variable	1 Month ( <i>n</i> = 45) 28%		3 Months ( <i>n</i> = 27) 18%		6 Months ( <i>n</i> = 18) 12%	
	Location 1	Location 2	Location 1	Location 2	Location 1	Location 2
<b>Sleep location</b>						
Own room	7 (16)	3 (7)	7 (26)	1 (4)	7 (39)	4 (22)
Parent room	34 (76)	34 (77)	20 (74)	25 (93)	9 (50)	13 (72)
Other room	4 (9)	7 (16)	0	1 (4)	2 (11)	1 (6)
<b>Sleep surface</b>						
Crib (crib, cradle, bassinet, playpen)	36 (80)	4 (9)	25 (93)	3 (11)	14 (78)	3 (17)
Adult bed or mattress	3 (7)	23 (51)	2 (7)	20 (74)	2 (11)	10 (56)
Sofa	0	2 (4)	0	0	1 (6)	0
Car seat	1 (2)	4 (9)	0	1 (4)	0	3 (17)
Bedside co-sleeper ("sidecar")	1 (2)	0	0	0	1 (6)	0
Swing	2 (4)	6 (13)	0	1 (4)	0	0
Other	2 (4)	6 (13)	0	2 (7)	0	2 (11)
<b>Position child placed in</b>						
Supine	39 (87)	29 (64)	21 (78)	9 (33)	9 (50)	4 (22)
Side	3 (7)	9 (20)	6 (22)	7 (26)	5 (28)	6 (33)
Prone	0	2 (4)	0	0	3 (17)	4 (22)
Other	1 (2)	0	0	0	0	0
Indeterminate (nonsupine)	2 (4)	5 (11)	0	11 (41)	1 (6)	4 (22)
Items on bed excluding pacifier, mean ± SD	1.8 ± 1.3	2.5 ± 1.3	1.7 ± 1.0	2.7 ± 1.0	2.1 ± 1.3	2.4 ± 1.6
Shared sleep surface	4 (9)	30 (67)	1 (4)	22 (81)	3 (17)	12 (67)

Unless otherwise indicated, values are given as *n* (%).

At 1 month, 2<sup>nd</sup> location  
 91% nonrecommended surface  
 36% nonsupine position  
 2-3 nonapproved items on surface  
 67% now on shared sleep surface

# What Do We Do?

- ▶ Pediatric healthcare providers did this for car safety
  - ▶ By 2000, for infants
    - ▶ Appropriately positioned car seats used for >90%
    - ▶ Reduced risk of fatal injury in a crash by 71%
    - ▶ In SC, now 13 deaths 2009-2015
      - ▶ Compared to 194 strangulation or suffocation in bed and 265 SIDS
- National Highway & Traffic Safety  
SC DHEC report, October 2016
- ▶ Time to Do the Same for Safe Sleep
  - ▶ Educate
    - ▶ Prenatal or earlier
    - ▶ Universal and every visit
    - ▶ Audit to ensure
    - ▶ Focus specifically on middle of the night/exhausted decisions

# What Do We Do?

- ▶ Develop a visceral response to unsafe sleep



# Join Our Safe Sleep Effort

## Birth Outcomes Initiative Baby Friendly/Safe Sleep Work Group

<https://www.scdhhs.gov/organizations/boi>

Sarah Taylor, Workgroup Chair

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Jennifer Hudson

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Meet 2<sup>nd</sup> Wednesday of each month

10:30-12:30

South Carolina Hospital Association

# Questions?

# Mark Your Calendar!

## Next BOI Meeting:

April 12<sup>th</sup> 10:30am-12:30pm

SC Hospital Association

## 2017 Annual SCBOI Symposium

November 16<sup>th</sup>

Columbia Metropolitan Convention Center

## Thank You!

Please visit:

<https://www.scdhhs.gov/boi>

